Urban Activation

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Professor|David Crutchfield
Design Thesis|Spring 2017

Narrative

Grew up in Bloomington, MN

Attending College in Fargo, ND

Interned in Duluth, MN

Quality of life?

Research Question

How can an urban campus improve the quality of life a city has to offer?

Proposal

Create an urban campus and general master campus plan for the University of Minnesota, Duluth to improve the quality of life for Duluth.

Definitions

Quality of life

Definition - Standard of health, comfort, and happiness

Forms of Measurement_- Economy, job market, uemployment rate, health, education, social interactions, diversity, safety, natural environment, and living environment

Urban Campus

Definition - Higher education institution located in a downtown region

Research Agenda

Research Question	System of Inquiry	Strategies	Tactics	Role of Design
How can an urban campus improve the quality of life a city has to offer?	Emancipatory -cultural -social -people oriented -historical	1. Interpretive 2. Qualitative 3. Correlational	1. Personal Interviews 2. Literature Reviews 3. Case Studies	1. Emancipatory -cultural -social -people oriented -historical 2. Responsive 3. Representative

Tactic One - Personal Interviews

Open Ended

Questions Helped Guide the Interviews

Interview Questions

1. How long have you been working for the city of Duluth (or UMD, etc.)?
2. What are your main roles for the city of Duluth as a (List job tittle)?
3. **What problems do you see arising if an urban campus is developed in downtown Duluth?**
4. What words would you use to describe downtown Duluth and why?
5. What words would you use to describe the City of Duluth and why?
6. **What part or areas of downtown Duluth would you like to see redeveloped? Adaptive Reuse?**
7. What type of retail do you see being the most successful, economically and socially in downtown Duluth?
8. What other type of development is needed if an urban campus is developed in downtown Duluth?
9. **Economically, what impact do you think an urban campus would have on Duluth?**
10. What types of issues will arise with parking and traffic?
11. **What do you think would be the most successful major(s)/colleges (engineering, business, etc.) to bring downtown? Why?**
12. What sustainable actions are you aware of that Duluth has implemented?
13. What sustainable actions do you wish to see in Duluth?
14. What is your favorite part of Duluth?
15. Do you think anything is missing from Duluth that would improve your quality of life?
16. **Socially what impact do you think an urban campus would have on Duluth?**
17. How would you describe the culture in Duluth?
18. What building typology would you like to see developed in downtown Duluth?
19. What is your favorite building in Duluth, why?
20. What are your dreams for the future of Duluth?
21. What kinds of ideas or opportunities might you have if you could design a downtown campus for Duluth?

Personal Interview Quotes

Emily Larson - Mayor of Duluth

"An Urban Campus would be awesome and help activate downtown. It would help activate downtown and provide a constant presence of people downtown all the time. Socially it will create interaction between people and spur some creativity, more entrepreneurs."

Kent Worley - Landscape Architect

"The mixing of ages, interests, new and old seems excellent."

Heather Rand - Director of Business and Workforce Development

"Urban Campuses make sense because you are offering real life, being in an urban setting versus isolated campus."

Tim Meyer - Local Architect

"An Urban Campus will help raise surrounding property value to a point where it makes it worth while to come in and invest money, it also has a big impact on return on investment."

Keith Hamre - Director, Planning and Construction Services

"An Urban Campus would have positive impact, it would bring people into the downtown and revitalize it. It would bring in more service industry, more vibrancy into the downtown and create better usage of out transit system."

John Kratz - Economic Professor, UMD

"An Urban Campus would have a positive impact on development."

Personal Interview Key Take Aways

1. Urban Planning

2. Quality of Life

3. Sustainability

4. Higher Education

5. Design

6. Problems

Urban Planning - Key Take Aways

1. In need of redevelopment of 200 East block.
2. In need of redevelopment of abandoned buildings and surface parking lots throughout entire downtown.
3. Downtown needs a minimum of 200 more permanent residents to truly impact Duluth's economy.
4. Streetscape design needs to be reevaluated to cater towards biker needs and pedestrian safety.

200 East Block

Current Streetscapes

Quality of Life - Key Take Aways

Postive Impact Economically

- Spur greater financial investment surrounding downtown
- Spur additional service businesses
- Produce more property tax

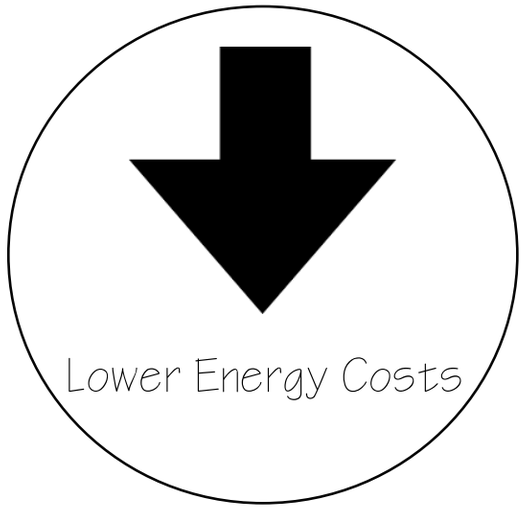
Postive Impact Socially

- Helps create a better connection to the university
- Provide more “hangout space”
- Would activate downtown by providing constant presence of people spuring creativity, activity, and vinbrancy

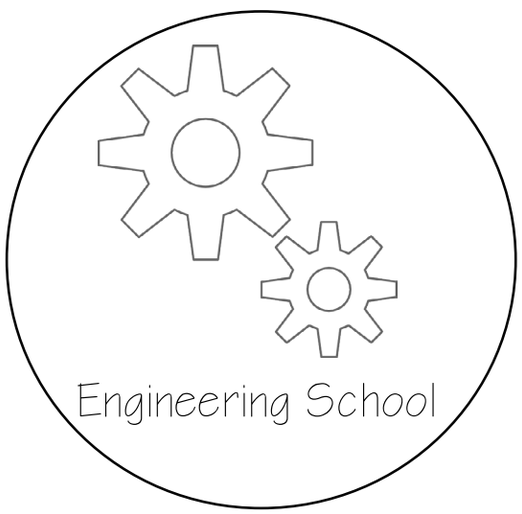
Postive Impact on Well-being

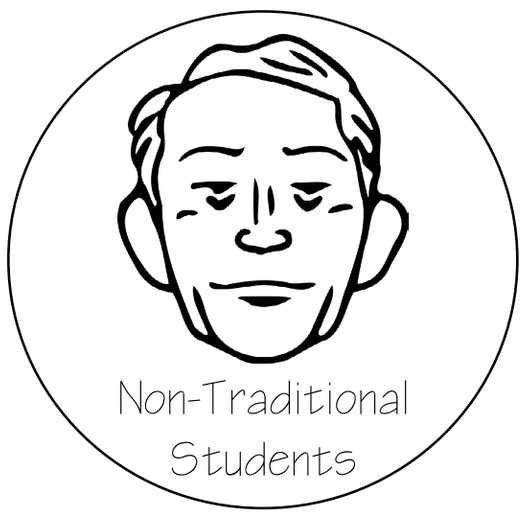
- Provide direct lakewalk connection
- Provide lake views
- Provide non traditional srudents educational opportunities

Sustainability - Interview Key Take Aways



Higher Education - Interview Key Take Aways





Design - Interview Key Take Aways

Lake Views

For Duluth

For UMD

Problems - Interview Key Take Aways

Parking

Tactic Two - Literature Review

1. Urban Planning

2. Quality of Life

3. Higher Education/Business Incubator Design

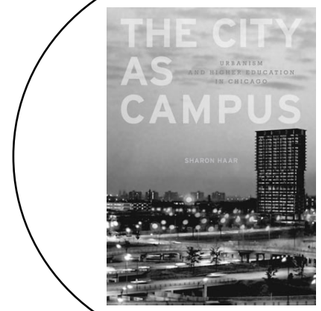
Urban Planning - Literature Key Take Aways

America's Urban Campus - Anderson Economic Group

Cultural, economic, and social benefits of urban colleges.

The Journal of Higher Education - Ohio State University

Benefits of sense of place on a campus.



The City as Campus - Sharon Haar

Benefits of a city for higher education.

Planning for Urban Universities and Colleges - SmithGroup, JJR

Case Study of Cleveland State University.

Quality of Life - Literature Key Take Aways

The Economic Effect of Urban Colleges on their Surrounding Communities - Annette Steinacker

Economic impact of Urban Colleges.

The Distinctive City - Edward T. McMahon

Importance of high quality of life and sense of place.

Representing the City: Arts, Culture, and Diversity in Philadelphia - Micheal Stem, PhD, UPenn Social Impact

Social impact of diversity on students and community, specifically in urban settings.

Quality of Life; Everyone Wants it, but What is it? - Forbes

Defiined quality of life and how it is measured.

Design - Literature Key Take Aways

How to Design a Business Incubator - M + A Architects

Explained the purpose of a business incubator and how to design a successful business incubator.

Innnovative Design Quarterly - Barbara Greenbaum House - Adam Yarinsky, AiA

"Residential college model."

Creating Defensible Space - Oscar Newman

Definied defensible space and how architecture can play a role in the saftey of people and cities.

Tactic Three - Case Studies

1. Higher Education
A. Tulane University - Barbara Greenbaum House
B. University of Minnesota Duluth - Labowitz Business School
C. University of Minnesota Duluth - Swenson Civil Engineering Building
C. North Dakota State University - Barry Hall

2. Master Planning
A. North Dakota State University - Downtown Campus
B. Yale University

3. Business Incubators
A. Halle Freyssinet Freight Station
B. Greensburg Business Incubator
C. Emerging Prairie

Higher Education - Case Studies Key Take Aways

Tulane University - Barbar Greenbaum House

1. Public space.
2. Strong sense of community.
3. Intergration.

UMD - Labowitz School of Business

1. Maximize natural daylighting.
2. Low engergy consumption.
3. Collaboration.

UMD - Swenson Civil Engineering Building

1. Optimize the ability to learn.
2. UMD Culture.

NDSU - Barry Hall

1. Real life working environment.
2. Strong sense of community.
3. Business environment.

Master Planning - Case Studies Key Take Aways

NDSU - Downtown Campus
Master Plan

1. Private buyers.
2. Transit system.
3. Economical and social benefits.

Yale University - Campus
Master Plan

1. Impact on surrondings.
2. Transit options.
3. Sense of place.

Business Incubator - Case Studies Key Take Aways

Halle Freyssinet -
Business Incubator

1. Active space.
2. Multifunctional.
3. Stong connection to the community.

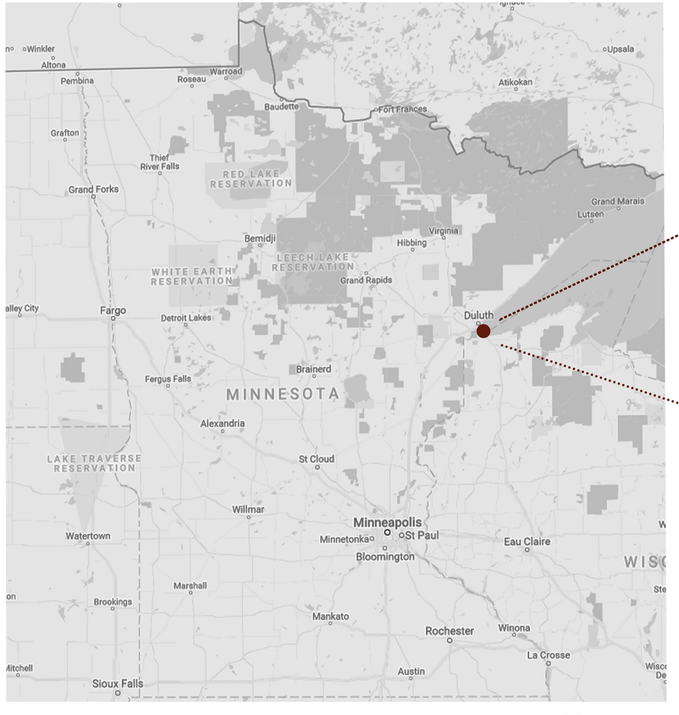
Greensburg -
Business Incubator

1. Pedestrian interaction.
2. Connection to history and culture.
3. Education to the public.

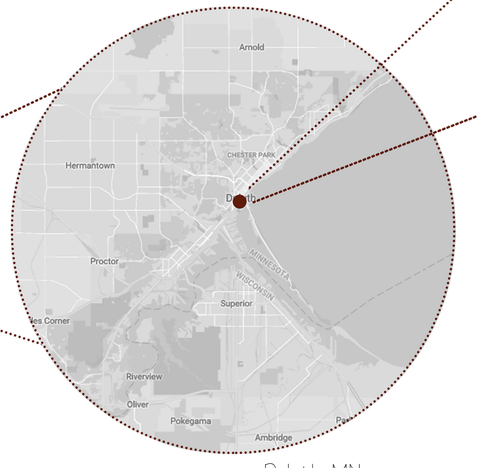
Emergining Praire -
Entrepreneunal Ecosystem

1. Multifunctional.
2. Affordable.
3. Location.
4. Comfortable.

Site

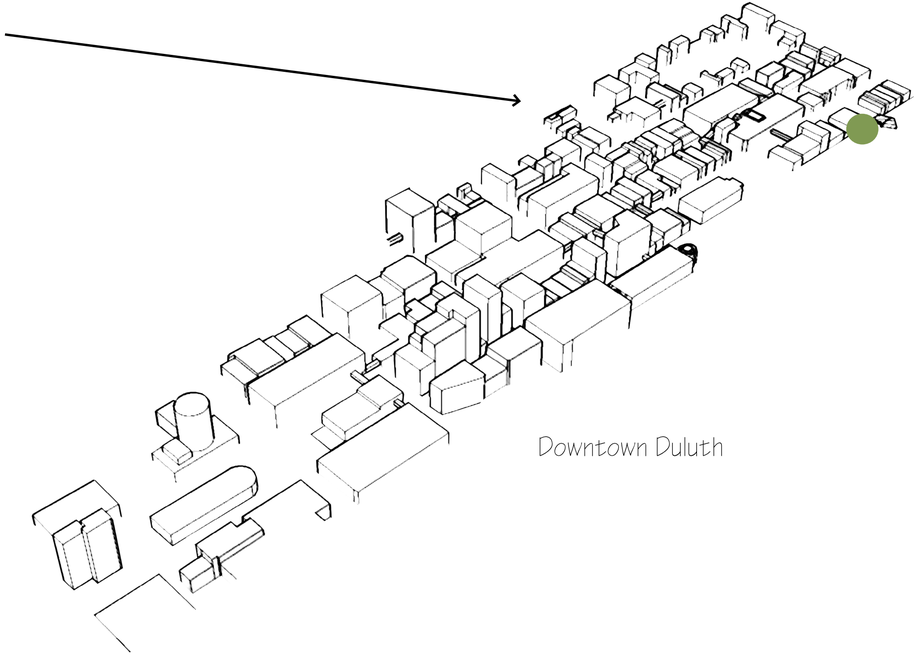


Minnesota



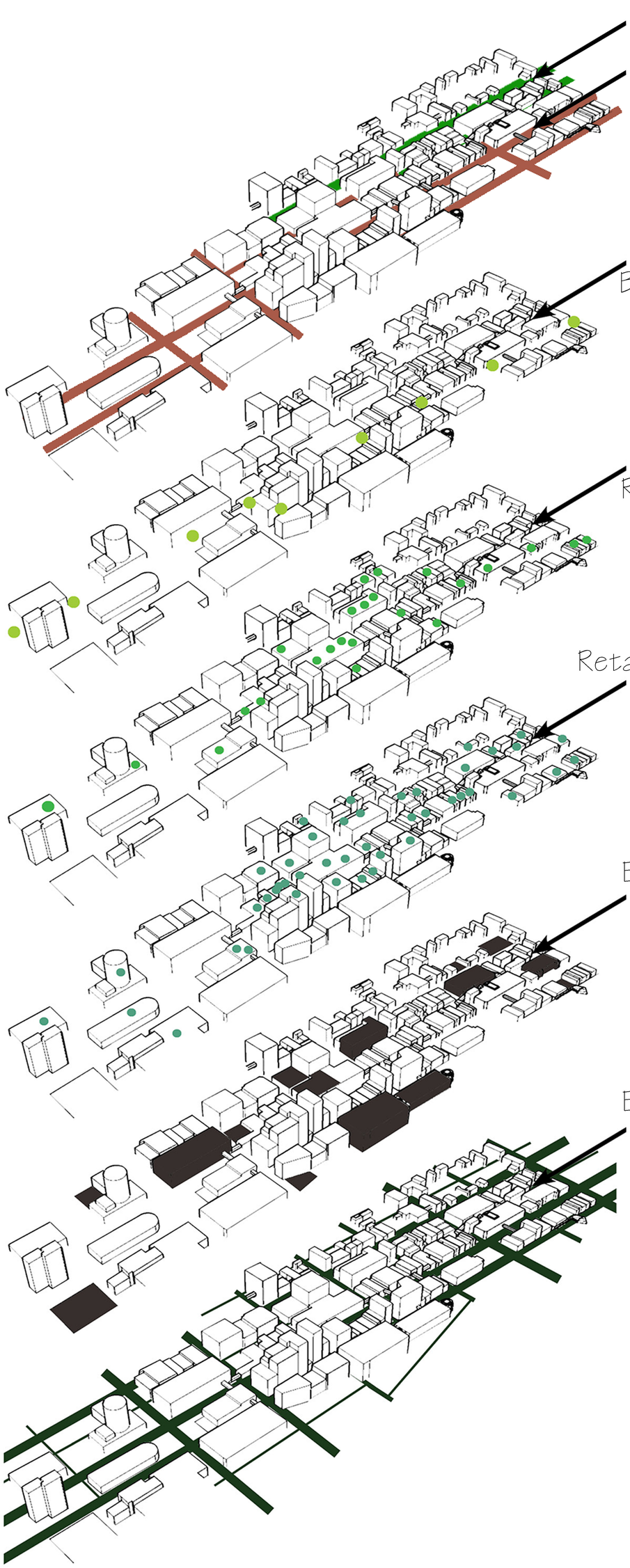
Duluth, MN

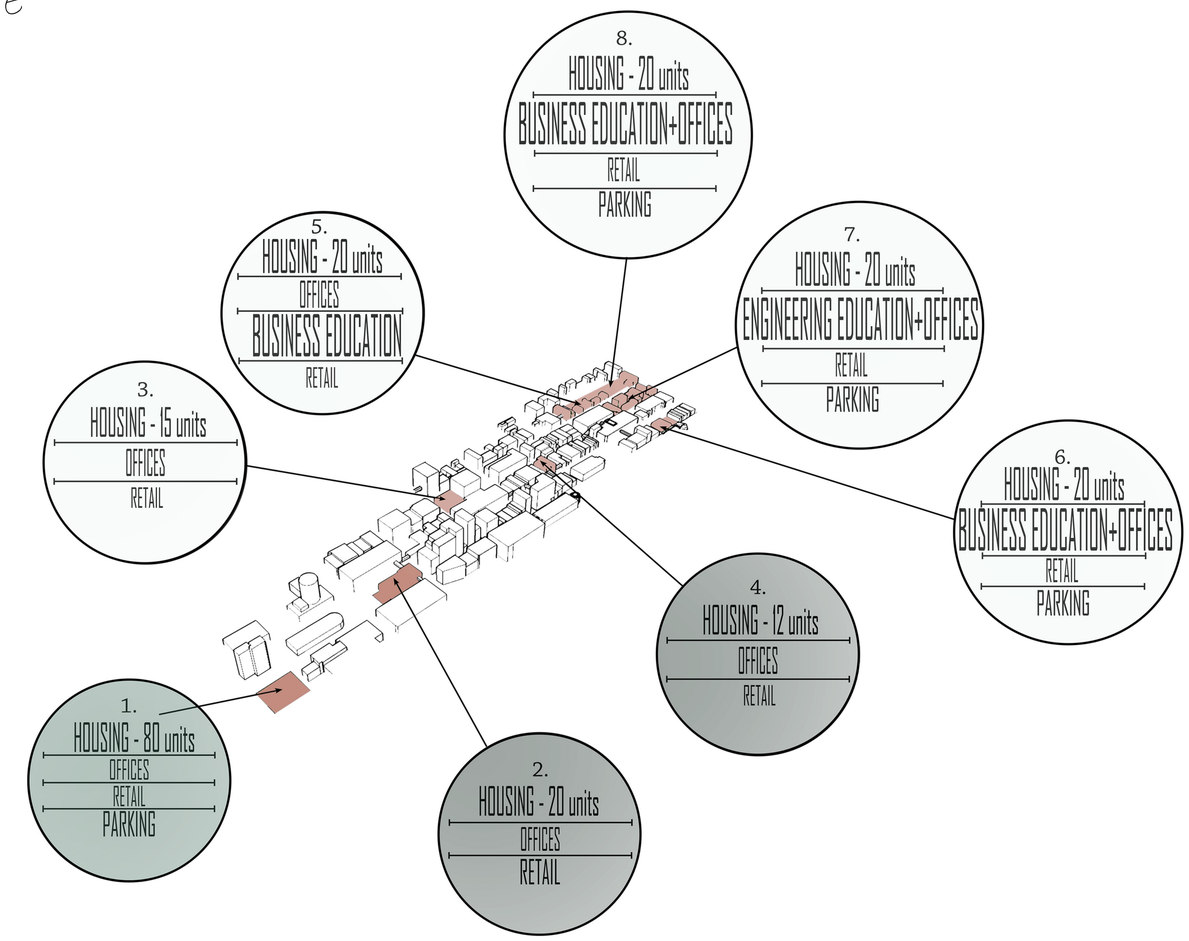
Downtown Duluth, MN

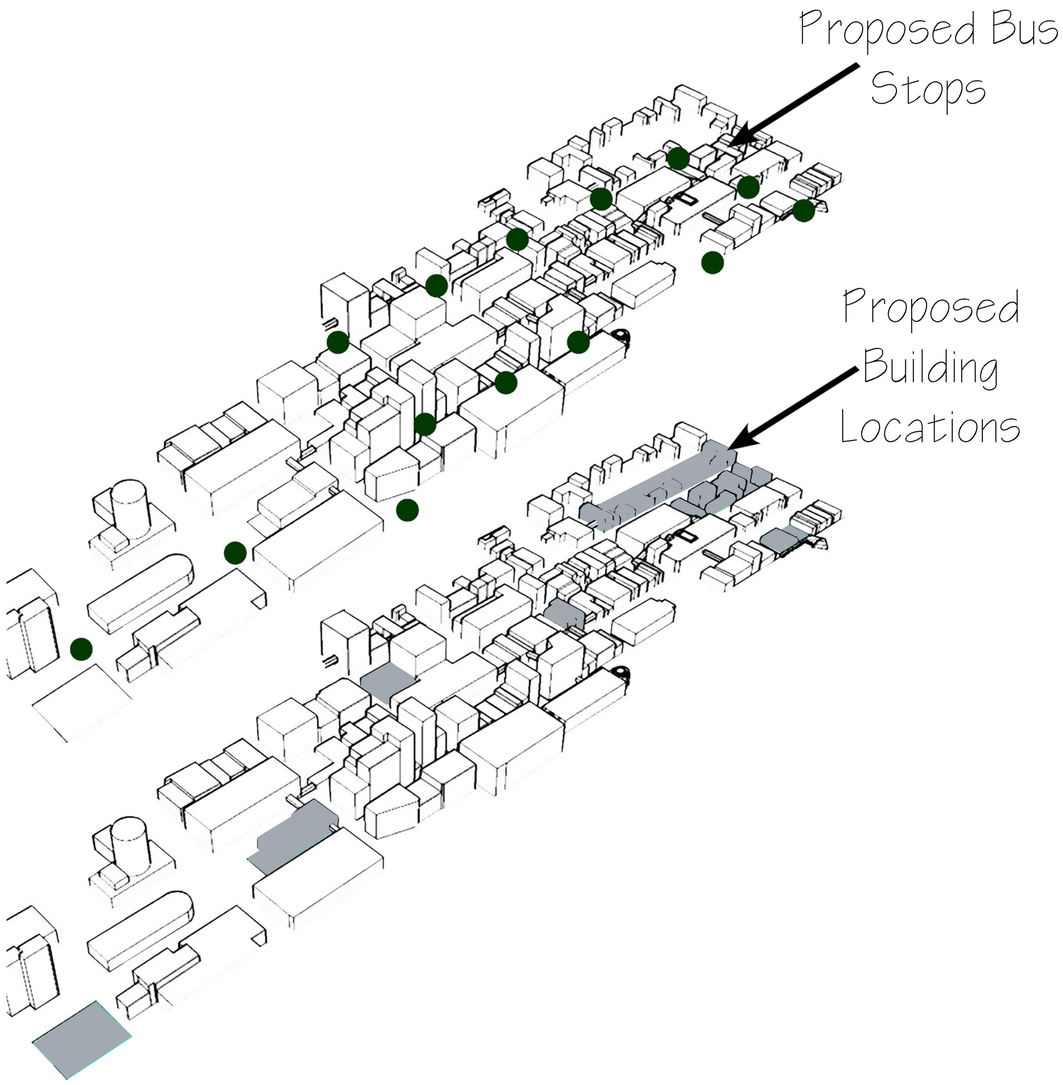


Downtown Duluth

Master Plan Proposal





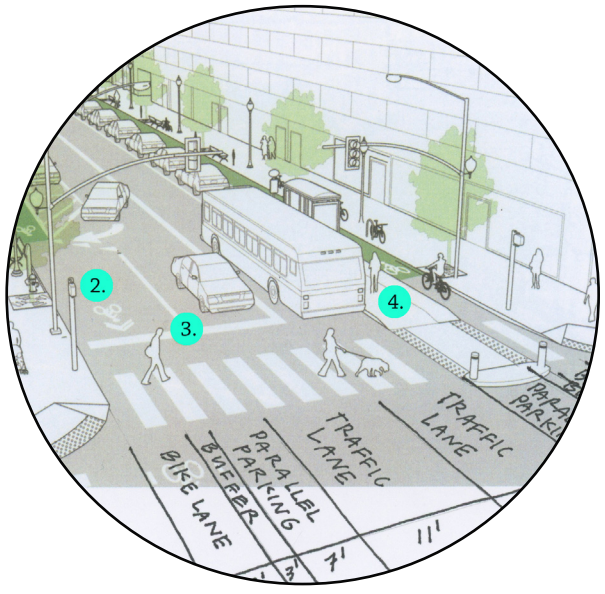


Streetscape Design - Proposed Options

1st St.

Superior St.

Michigan St.



Results of Master Plan

"Improved quality of life"

Enhanced

Transit

Streetscape

Bikeability

Walkability

Sustainability

Economy

Culture

Community

Additional Parking

207 additional permanent downtown residents

Design Matrix + Goals

Quality of Life

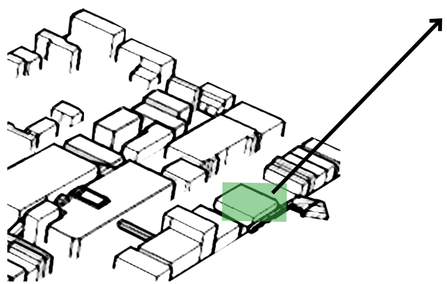
Higher Education

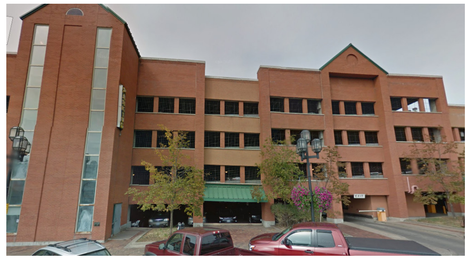
	Economical	Environmental	Social
Classrooms	Mixed facilitators, professional & students	Natural light, movable furniture, technology equipped, forced air, max sight	Public, encouraged interaction, multi-functional, ADA, educational, diversity
Offices	Mixed facilitators, rent-able	Natural light, good views	Multi-functional, diversity, ADA
Study Areas/ Private Working Spaces	Mixed facilitators, professionals, students, staff, public	Natural light, quiet, good views, movable furniture, easy access, technology equipped	Public, encouraged interaction, ADA, educational, diversity
Breakout Spaces	Mixed facilitators, professionals, students, staff, public, rent-able, entrepreneurial	Natural light, good views, movable furniture, easy access, technology equipped	Multi-functional, encouraged interaction, ADA, educational, drive, diversity
Lecture Hall/ Presentation Space	Mixed facilitators, professionals, students, staff, public, rent-able, entrepreneurial	Natural light, publicly located, good views, forced air, technology equipped	Multi-functional, public, encouraged interaction, ADA, educational, diversity
Creative Space	Mixed facilitators, professionals, students, staff, public, rent-able, entrepreneurial	Natural light, movable furniture, technology equipped, publicly located, easy access, good views	Multi-functional, public, encouraged interaction, educational, diversity
Restrooms	Public	Easy access	Public
Circulation	Public, efficient	Natural light	Public, encouraged interaction
Utilities	Sustainable	Sustainable	Sustainable, educational
Residential	Mixed income/rate housing	Lake views, natural ventilation, natural light, safe	Diversity, encouraged interaction

Goals

Connectivity
Social interaction
Creativity
Educational
Community
Public
Sense of place
Comfortable
Natural light
Multifunctional
Equity

Detailed Site

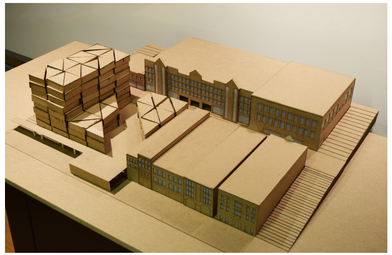
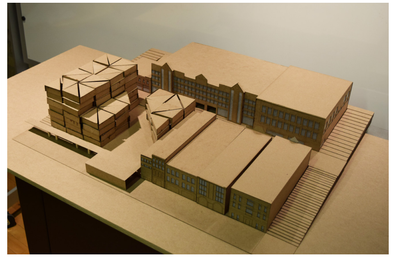
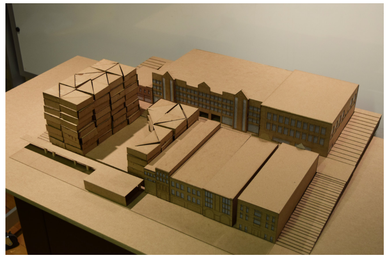
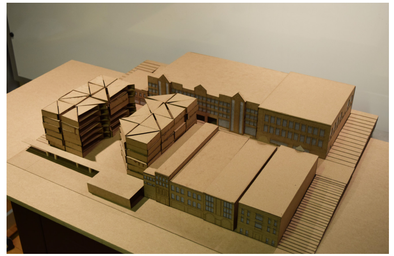
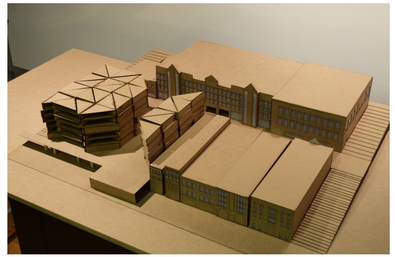




Superior St.

Michigan St.

Form Exploration

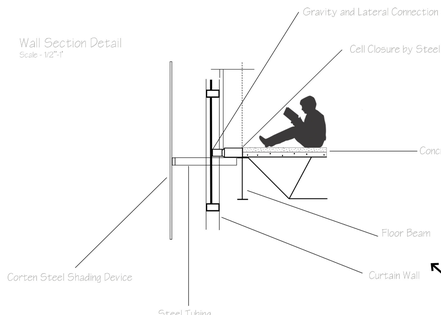
1. Lake views
2. Natural light
3. Biking connection
4. Lake walk connection
5. Produce more property tax
6. Spur greater financial investment surrounding downtown
7. Diversity
8. Social Interaction
9. Education
10. Equity

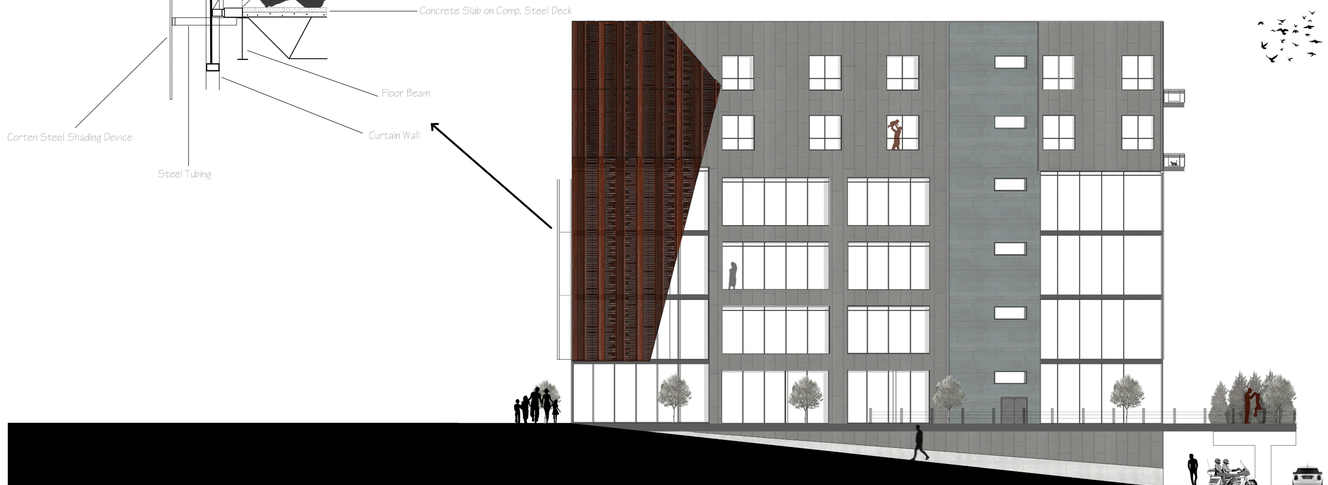
Floor Plans

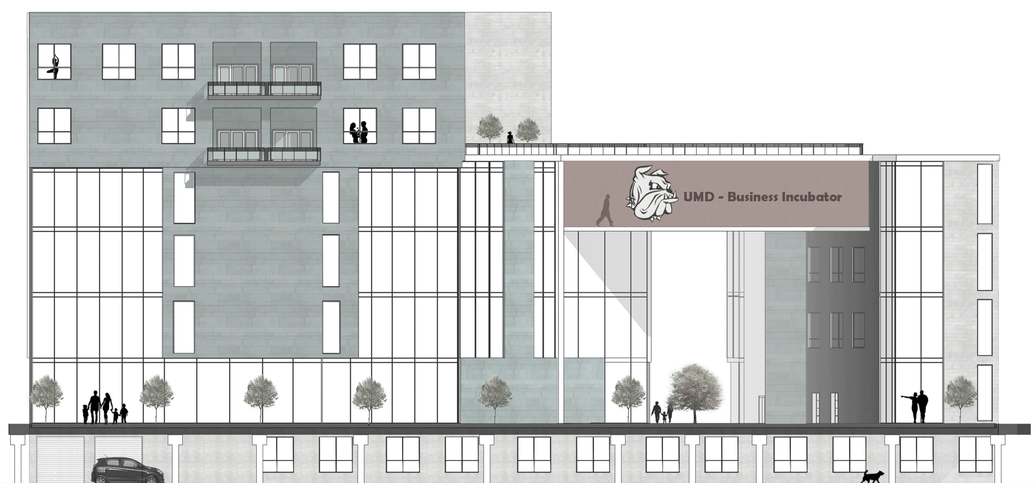
Ground Floor
Scale - 1"-25'
First Floor
Scale - 1"-25'
Second Floor
Scale - 1"-25'
Third Floor
Scale - 1"-25'
Fourth & Fifth Floor
Scale - 1"-25'
Creative Space
Education
Offices
Restrooms
Mechanical & Storage
Studio
One Bedroom
Two Bedroom

Exterior Perspective

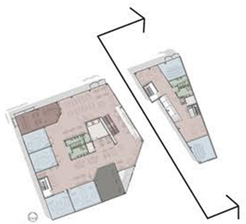
Wall Detail + North Elevation + South Elevation





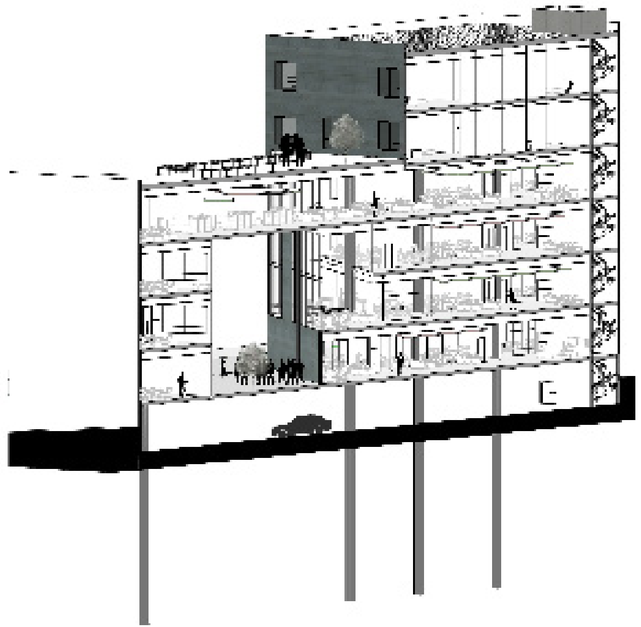


Section Cut A + B



Section Cut A

Scale - 1”-15’



Section Cut B

Scale - 1”-15’

Multifunctional - This space has an open floor plan to maximize the use of multifunctional furniture. Thus, creating an interior space that can be used for any occasion such as a classroom, business meeting, or community events. Having community spaces such as this one creates an easy venue option for the community to host various functions, improving quality of life.

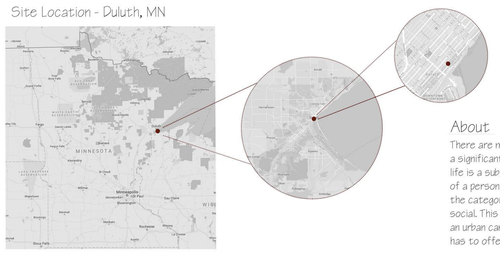
Educational - One of the main functions of this building is providing educational opportunities to the citizens of Duluth along with the current students of the University of Minnesota, Duluth. This interior space promotes the low key learning environment UMD's known for. This space offers quality views that help promote creativity and ability to learn, improving the quality of life.

Connectivity - A huge take away received from Duluth Citizens and officials is the need for a connection from Lake Superior into the downtown region. This building offers a strong easy connection from the end of the lake walk right into the downtown. Offering this easy connection for Duluth's citizens creates the perfect opportunity for citizens to enjoy the beautiful lake and park, improving quality of life.

Social Interaction - This building is hosting the public, professionals, students, and staff, having this mix of people encourages random social interactions. These interactions will promote creativity and the opportunity to learn from each other. Social interactions promote endless opportunities for citizens, improving quality of life.

Urban Activation

Site Location - Duluth, MN



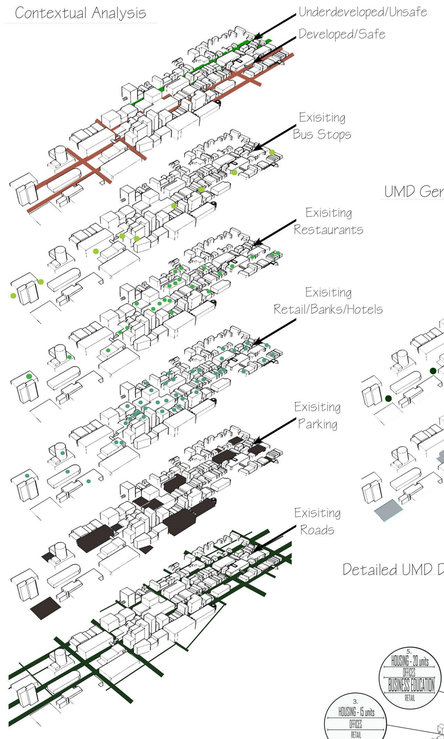
About

There are many elements within a city that provide a significant impact on your quality of life. Quality of life is a subjective measure of the overall happiness of a person or community, typically measured within the categories of economic, environmental, and social. This thesis addresses the question; how can an urban campus improve the quality of life a city has to offer?

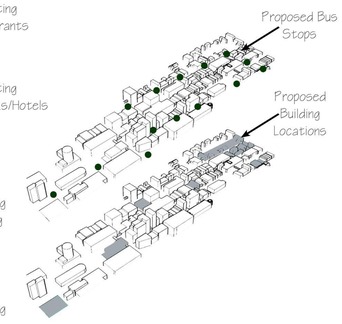
This urban campus strives to help improve the quality of life Duluth has to offer. The master plan and mixed use building provides a new way of learning and collaborating for students, professionals, and the public.

The building includes a business incubator, classrooms, affordable housing, retail, and outdoor space. The building encourages the public, students, professionals to learn from one another. The mix of people promotes entrepreneurship and creativity ultimately endorsing higher quality of life. Quality views, natural light, social interaction, connectivity, context, and multifunctional design were the main design concepts used during the design process. Every design decisions were based on improving the quality of life for the citizens of Duluth.

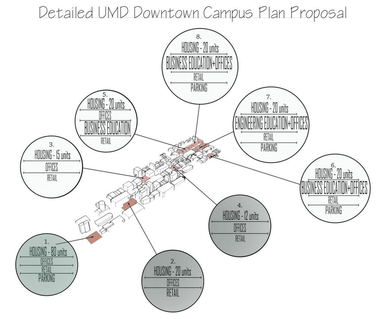
Contextual Analysis



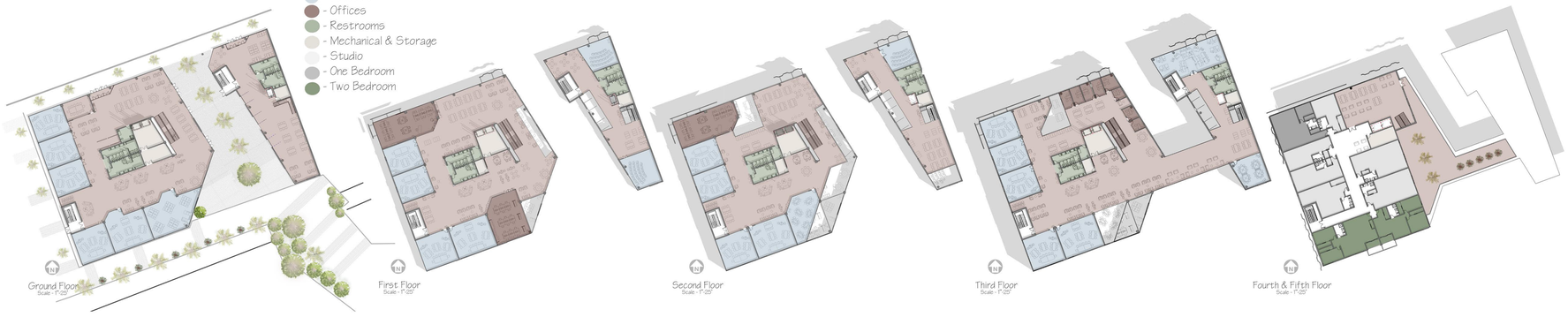
UMD General Master Campus Plan



Detailed UMD Downtown Campus Plan Proposal



- Creative Space
- Education
- Offices
- Restrooms
- Mechanical & Storage
- Studio
- One Bedroom
- Two Bedroom



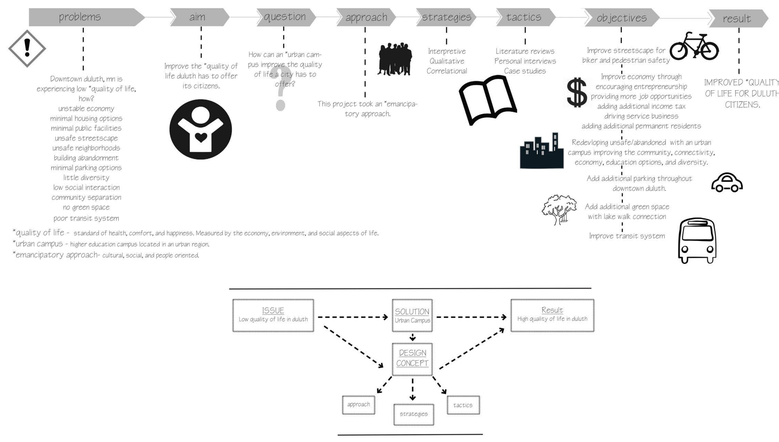
Ground Floor
Scale - 1"=20'

First Floor
Scale - 1"=20'

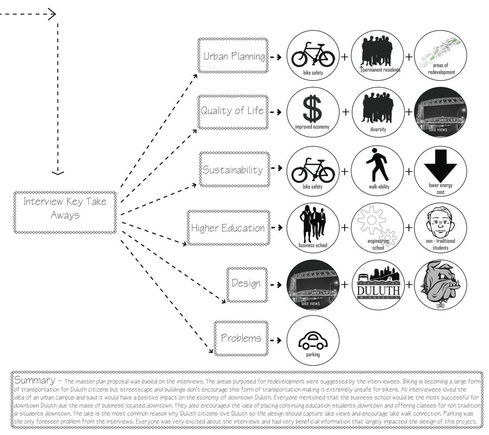
Second Floor
Scale - 1"=20'

Third Floor
Scale - 1"=20'

Fourth & Fifth Floor
Scale - 1"=20'



Personal Interviews



Case Studies

Halle Freyssinet Business Incubator
Building Location: Paris, France
Typology: Business Incubator
Market Sector: Public/Private
Building Size: 365,972.95 square feet
Building Cost: $220.00 million

Halle Freyssinet Elevation

1. Halle Freyssinet is the worlds largest business incubator. It was designed to create an **active entrepreneurial space** for start up businesses.
2. The building can be split into three parts. The hears of the building is specifically designed towards the community creating a **multifunctional space.**
3. A restaurants is included and is open 24 hours a day. It opens to the neighborhood, creating a stronger **connection to the community.**

Barry Hall - North Dakota State University
Building Location: Fargo, ND
Typology: Academic - Higher Edu.
Market Sector: Public
Building Size: 135,000 square feet
Building Cost: $15.0 million

Barry Hall Exterior Perspective

1. Barry Hall was designed to give NDSU students a **real life working environment.**
2. The design offers an environment specifically for business students creating a strong **sense of community.**
3. Specific features added to this building automatically bring out the **business environment,** such as the electronic ticker you see when you enter the building.

North Dakota State University Downtown Campus
Location: Fargo, ND
Typology: Academic - Higher Education
Market Sector: Public
Building's: Renaissance Hall - Architecture & Arts
Klai Hall - Architecture & Landscape
Barry Hall - Business

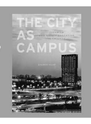
NDSU Mattus Transit System

1. The movement of expanding NDSU's traditional campus into a downtown campus **encouraged private buyers** to purchase and start small businesses in the downtown region.
2. The downtown campus is also responsable for developing a **stronger transit system** from main campus into the downtown.
3. Bringing NDSU into downtown Fargo provided developers with the **backing to develop housing units,** such as Cityscapes.

Literature Reviews

1. Urban Planning

AECOM — America's Urban Campus - Anderson Economic Group
This article summarized economic, social, and cultural benefits of urban campuses specifically in Chicago.



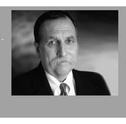
The City As Campus - Sharon Haar
This book explained how cities are acknowledged to be unique and a beneficial environment for higher education. Sharon went into detail about the benefits of urban campuses, providing god case studies.

SMITHGROUP JJR — Planning for Urban Universities and Colleges - Smith-Group, JJR
This article was a case study of Cleveland State University. SmithGroup went into detail about campus layout and benefits of urban campuses.

2. Quality of Life

The Economic Effects of Urban Colleges on Their Surrounding Communities Urban Studies, 42. - Annette Steinacker
This journal explains the economic, social, and cultural impact of urban campuses on their surrounding communities.

Forbes — Quality of Life: Everyone Wants It but, What is It? - Forbes
This article defines quality of life and how it is measured.



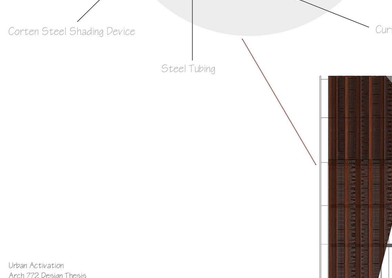
The Destructive City - Edward T. McMahon
Edward outlines why sense of place and quality of life is important. Its being benefits proven by studies that sense of place help improve productivity. "People care more about how beautiful a city is than the city's economic standing."

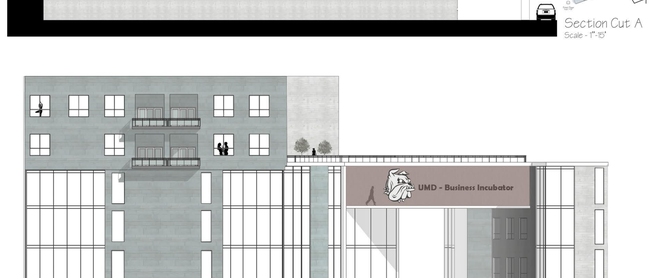
2. Higher Education & Business Incubator Design

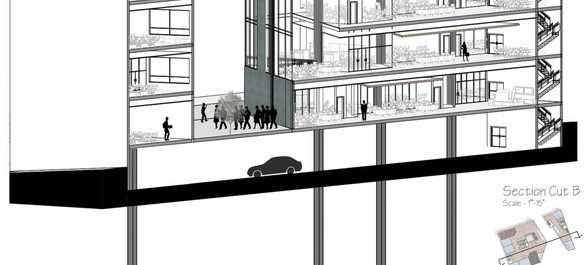
m+a — How to Design a Business Incubator - MnA Architects
MnA explains what a business incubator is and the purpose of it. They go into detail about how to design a successful business incubator.

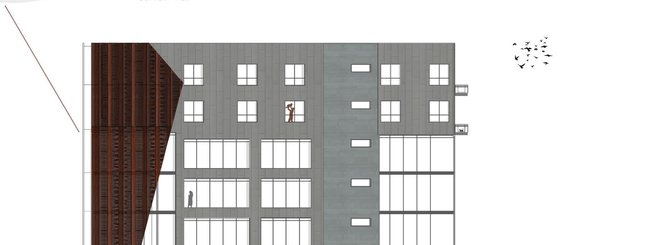
innovativedesign QUARTERLY — Innovative Design Quarterly: Barbara Greenbaum House - Adam Tanneby, AIA
This article summarized the "residential college model" and used Barbara Greenbaum House as a case study.

Creating Defensible Space - Oscar Newman
This book dives into the design of defensible space and what N.A. Oscar clarify a few misconceptions we have made in the subtlety of people and crimes. This book includes case studies to help design architecture and cities for greater safety.







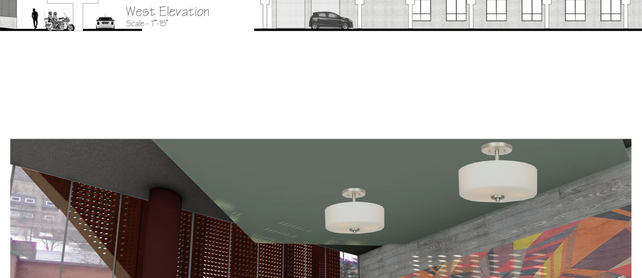


West Elevation
Scale - 1"=15'

South Elevation
Scale - 1"=15'

Urban Activation
Arch 7712 Design Thesis
Ashley Crow
Advisor - David Crutchfield
Software Used - Sketch-up, Revit, Lumion, Adobe Suite Cs6

Multifunctional - This space has an open floor plan to maximize the use of multifunctional furniture. Thus, creating an interior space that can be used for any occasion such as a classroom, business meeting, or community events. Having community spaces such as this one creates an easy venue option for the community to host various functions, improving quality of life.



Educational - One of the main functions of this building is providing educational opportunities to the citizens of Duluth along with the current students of the University of Minnesota, Duluth. This interior space promotes the low key learning environment UMD's known for. This space offers quality views that help promote creativity and ability to learn, improving the quality of life.

Connectivity - A huge take away received from Duluth Citizens and officials is the need for a connection from Lake Superior into the downtown region. This building offers a strong easy connection from the end of the lake walk right into the downtown. Offering this easy connection for Duluth's citizens creates the perfect opportunity for citizens to enjoy the beautiful lake and park, improving quality of life.

Social Interaction - This building is hosting the public, professionals, students, and staff, having this mix of people encourages random social interactions. These interactions will promote creativity and the opportunity to learn from each other. Social interactions promote endless opportunities for citizens, improving quality of life.

Questions

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